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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,598	04/02/2004	Wataru Abe	9333/373	3130

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EXAMINER	
BROUSSARD, COREY M	
ART UNIT	**PAPER NUMBER**
2835	

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/817,598	ABE, WATARU	
	Examiner	Art Unit	
	Corey M. Broussard	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 14-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 14-29* is/are rejected.

7)☒ Claim(s) *30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the limitations of claim 23 can coexist with the limitations of its parent claims. Specifically how the second engager and engaging member can be separate as implied in the parent claims, and integrated as claimed in claim 23. Also how could the second engager engage itself. Claims in dependent form shall be construed to include *all* the limitations of the claim incorporated by reference into the dependent claim, see 37 CFR 1.75.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 14-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (PN 5,587,854). With respect to claim 1, Sato teaches, a case (3); a driving unit (1) including a magnetic disk and a rotary driver operable to rotationally

drive a magnetic disk (1 is a hard disk drive, see col 3, 34-37), wherein the driving unit is installed in the case (Fig. 2A); an elastic supporting member (4d) disposed between the case and the driving unit; a locking member (6b) movably mounted in the case; and a connector (2) for connecting the driving unit and the apparatus body; wherein the elastic supporting member is operable to elastically support the driving unit, force applied to the external of the case is operable to move the locking member to a locked position and an unlocked position, and the driving unit is locked in the case when the locking member is in the locked position and unlocked in the case when the locking member is in the unlocked position (the locking member has two locked positions, the one illustrated in Fig. 2A and 2C, and where the inner case member 4 is locked to 6a via 6b), and the connector is operable to connect to the apparatus body when the locking member is in the locked position (see Fig. 4A, 6b is locking 6a to 4 while 2 is connected to 56).

5. With respect to claim 2, Sato teaches wherein a front portion corresponds to a side of the magnetic disk device in which the connector is disposed (2, see Fig. 1, 2A) and a rear portion corresponds to the side opposite to the front portion (3b, see Fig. 2A), the locking member (6b) reaches the unlocked position by moving towards the front portion of the magnetic disk device relative to the case, and the locking member reaches the locked position by moving towards the rear portion of the magnetic disk device relative to the case (see Fig. 2A, 3).

6. With respect to claim 3, Sato teaches wherein the locking member is biased by a biasing member (6a) in the direction of the unlocked position (see Fig. 2D, 6a biases the locking member 6b in an unlocked direction).

7. With respect to claim 4, Sato teaches wherein the locking member (6b) is disposed at an inner side of the case (see Fig. 2A), and has a switching protrusion exposed (6a) at an outer surface of the case that may be accessed from the exterior of the case.

8. With respect to claim 5, Sato teaches wherein a side surface of the case has a slit (3d3), the locking member (6b) is movable toward and away from the front portion of the magnetic disk device (see Fig. 2A, 3), and the switching protrusion (6a) on the locking member is located in the slit (see Fig. 2B).

9. With respect to claim 6, Sato teaches wherein the side surface of the case has a groove (3d) extending forward and backward, and the slit (3d3) opens in the groove (see Fig. 2B).

10. With respect to claim 7, Sato teaches a body connector (56) coupled with the connector (2); a switching protrusion (6a) coupled with the locking member (6b); a first engager (6a1) operable to engage a first end of the switching protrusion; a second engager (6a2) operable to engage a second end of the switching protrusion; wherein the locking member is in the locked position when the first engager is engaged with the first end of the switching protrusion and the second engager is engaged against the second end of the switching protrusion (the word engage is broadly interpreted to mean

"under the influence of", it does not require direct contact. The locking member 6b is in a locked position locking 4 and 6a when 6a1 and 6a2 are engaging 6a).

11. With respect to claim 14, Sato teaches an apparatus comprising: a body (51) for removably mounting a magnetic disk device; the magnetic disk device comprising a case (3), a driving unit (1), and a connector (2); the driving unit including a magnetic disk and a rotary driver operable to rotationally drive the magnetic disk (1 is a hard disk drive, see col 3, 34-37), and being installed in the case; the connector operable to connect the driving unit to the body (2 is operable to connect to 56); the case including an elastic supporting member (4d); the elastic supporting member disposed between the case and the driving unit (see Fig. 2A) and operable to elastically support the driving unit; the locking member movably mounted in the case (col 4, 64-67, see Fig. 2A and 3) and operable to move to a locked position and an unlocked position; and the body comprising a body connector (56) operable to connect with the connector of the magnetic disk device, and a switching unit (6a) operable to move the locking member to the locked position; wherein the driving unit is locked in the case when the locking member is in the locked position and unlocked in the case when the locking member is in the unlocked position (the locking member has two locked positions, the one illustrated in Fig. 2A and 2C, and where the inner case member 4 is locked to 6a via 6b), and the connector is operable to connect to the apparatus body when the locking member is in the locked position (see Fig. 4A, 6b is locking 6a to 4 while 2 is connected to 56).

12. With respect to claim 15, Sato teaches wherein the locking member (6b) is coupled with a biasing member (6c, see Fig. 2C).

13. With respect to claim 16, Sato teaches wherein the locking member (6b) is disposed at an inner side of the case (see Fig. 2A), and includes a switching protrusion (portion of 6a exterior to the case that contacts the user) operable from the exterior of the case (see Fig. 1).

14. With respect to claim 17, Sato teaches wherein a side surface of the case includes a slit (3d3), the locking member (6b) is movable toward and away from a front portion of the magnetic disk device (when the disk device 1 is detached from 4 6b is movable toward and away from a front portion of said device), and the switching protrusion on the locking member is located in the slit (see Fig. 2B).

15. With respect to claim 18, Sato teaches wherein the side surface of the case has a groove (3d) extending forward and backward, and the slit (3d3) open in the groove (see Fig. 2B).

16. With respect to claim 19, Sato teaches a first engager (6a1) and a second engager (6a2), the first engager engages the locking member (6b) in order to move the locking member to the locked position by force (the word engage is broadly interpreted to mean "under the influence of", it does not require direct contact. The locking member 6b is in a locked position locking 4 and 6a when 6a1 is engaging 6a) for inserting the magnetic disk device when the front portion of the magnetic disk device is inserted into the body connector (52), and the second engager engages the locking member in order to move the locking member to the unlocked position (if 4 is pulled out of the case 6b

will be pulled over the second engager 6a2, see Fig. 2D, 3) by force for removing the magnetic disk device when the magnetic disk device is removed.

17. With respect to claim 20, Sato teaches wherein the body further comprises a switching setting mechanism (5 and 8) operable to respond to the insertion of the magnetic disk device and engage the second engager to the locking member when the magnetic disk device is inserted.

18. With respect to claim 21, Sato teaches wherein the switching setting mechanism (5 and 8) is operable to move the second engager away from the magnetic disk device after the second engager allows the locking member to move to the unlocked position when the magnetic disk device is removed (when the disk device is removed, it moves away from the second engager).

19. With respect to claim 22, Sato teaches wherein the switching setting mechanism (5 and 8) comprises a sliding member (8) and an engaging member (5), the sliding member coupled with the magnetic disk device and moving with the magnetic disk device when the magnetic disk device is inserted, the engaging member moving in response to the movement of the sliding member in a direction perpendicular to the direction of movement of the sliding member (see Fig. 4B).

20. With respect to claim 23 as best as it can be understood, Sato teaches wherein the second engager (6a2) is integrated with the engaging member (5, both features are integrated as part of a whole device).

21. With respect to claim 24, Sato teaches a magnetic disk device removable from an apparatus body, the magnetic disk device comprising: a case (3) including an upper

case portion, a lower case portion, and a connector portion (portion housing connector 2, see Fig. 2A); at least one first elastic supporting member (one of the plurality of supporting members 70, col 9, 11-26 and Fig. 13A, 13B) connected with the lower case portion; a locking member (6b) connected with the lower case portion; at least one second elastic supporting member connected with the upper case portion (one of the plurality of supporting members 70); a driving unit (1) including a magnetic disk and a rotary driver operable to rotationally drive a magnetic disk, wherein the driving unit is installed in the case; and a connector (2) for connecting the driving unit and the apparatus body, the connector located in the connector portion; wherein the first and second elastic supporting members are operable to elastically support the driving unit, force applied to the external of the case is operable to move the locking member to a locked position and an unlocked position, and the driving unit is locked in the case when the locking member is in the locked position and unlocked in the case when the locking member is in the unlocked position (the locking member has two locked positions, the one illustrated in Fig. 2A and 2C, and where the inner case member 4 is locked to 6a via 6b), and the connector is operable to connect to the apparatus body when the locking member is in the locked position (see Fig. 4A, 6b is locking 6a to 4 while 2 is connected to 56).

22. With respect to claim 25, Sato teaches wherein a front portion corresponds to a side of the magnetic disk device in which the connector is disposed (2, see Fig. 1, 2A) and a rear portion corresponds to the side opposite to the front portion (3b, see Fig. 2A), the locking member (6b) reaches the unlocked position by moving towards the front

portion of the magnetic disk device relative to the case, and the locking member reaches the locked position by moving towards the rear portion of the magnetic disk device relative to the case (see Fig. 2A, 3).

23. With respect to claim 26, Sato teaches wherein the locking member is biased by a biasing member (6a) in the direction of the unlocked position (see Fig. 2D, 6a biases the locking member 6b in an unlocked direction).

24. With respect to claim 27, Sato teaches wherein the locking member (6b) is disposed at an inner side of the case (see Fig. 2A), and has a switching protrusion exposed (6a) at an outer surface of the case that may be accessed from the exterior of the case.

25. With respect to claim 28, Sato teaches wherein a side surface of the case has a slit (3d3), the locking member (6b) is movable toward and away from the front portion of the magnetic disk device (see Fig. 2A, 3), and the switching protrusion (6a) on the locking member is located in the slit (see Fig. 2B).

26. With respect to claim 29, Sato teaches wherein the side surface of the case has a groove (3d) extending forward and backward, and the slit (3d3) opens in the groove (see Fig. 2B).

Allowable Subject Matter

27. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

28. Applicant's arguments with respect to claims 1-7 and 14-30 have been considered but are moot in view of the new grounds of rejection.

The new grounds of rejection are not necessitated by the amendment.

29. The Examiner notes that the claims are replete with functional language. Although not improper, note that functional language in apparatus claims may not constitute a positive structural limitation. See MPEP 21114.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on 7:30am-6:00pm M-F (Flextime).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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PRIMARY EXAMINER